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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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09/830,105

04/23/2001

Jean-Claude Chevet

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03/02/2006

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EXAMINER

SHAPIRO, LEONID

ART UNIT

PAPER NUMBER

2677

DATE MAILED: 03/02/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/830,105

Applicant(s)

CHEVET ET AL.

Examiner

Leonid Shapiro

Art Unit

2677

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 02 August 2005.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-13 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 4,7 and 13 is/are allowed.
- 6) ☒ Claim(s) 1,3,5-6,8-11 is/are rejected.
- 7) ☒ Claim(s) 2 and 12 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

1. Claims 1,3,9,11 are rejected under 35 U.S.C. 103(a) as being unpatentable over Saegusa (US Patent No. 5,475,448) in view of Van Dijk (US Patent No. 6,424,325 B1) and Nakamura (US Patent No. 6,597,334 B1).

As to claim 1, Saegusa teaches a method for addressing cells (cells in reference arranged at intersection of A1-Aj and S1-Sk lines, See Fig. 1) arranged as a matrix array (See Fig. 1. items 2, 10, Col. 2, Lines 48-54), each cell being situated at intersection of a line (See Fig. 1, items S-Sk) and a column (See Fig. items A1-Aj), the array having line inputs (See Fig. 1, items 13-14, Col. 2, Lines 54-62) and column inputs for displaying grey levels (See Fig. 1, items 2, 9, 11, Col. 2, Lines 34-40 and from Col. 2, Line 66 to Col. 3, Line 9) defined by video words making up a digital video signal (See Col. 2, Lines 9-14) and defining an image (See Fig. 1, items 3, 8, Col. 2, Lines 4-34), the column inputs each receiving a control word for the corresponding column, said control word corresponding to the video word (in the reference equivalent to 8-bit pixel data) (See Fig. 1, items 1, 3, Col. 2, Lines 9-12) relating , for the corresponding column, to an addressed line (See Fig. 1, items 11, 13-14, Col. 2, Lines 34-40 and 48-59), the control word being composed of n bits transmitted sequentially, each of said n bits of

the sequence corresponding to a sub-scan (See Col. 2, Lines 9-14 and from Col. 2, Line 66 to Col. 3, Line 3), each bit selectively triggering, the illumination of the cell of the addressed line and of the column receiving the control word (see Fig. 1, items 2, 9, 11, Col. 2, Lines 34-40), for a time proportional to the weight of the bit in the word (See Col. 2, Lines 9-14 and from Col. 2, Line 66 to Col. 3, Line 9).

Saegusa does not show a different coding of the column control words is performed depending on whether the word relates to an even or odd line, wherein at least m successive bits of specified ranks, m at least 2 and less or equal to n , have different weight from one control word to the other, the sum of the weights of these bits remaining identical from one control word to the another.

Van Dijk teaches a different coding of the column control words is performed depending on whether the word relates to an even or odd line (See Figs. 6A, 6B, items $m-1$, m , 0-5, Col. 8, Lines 29-52), the difference consisting in the fact that at least m (in the reference $m=n$) successive bits of specified ranks, m between 2 and n , have different weight from one control word to the other (See Figs. 6A, 6B, items $m-1$, m , 0-5, Col. 8, Lines 29-52), the sum of the weights of these bits (for $m=n$) remaining identical from one control word to the other (See Fig. 6A. 6B, length of items $5+4+3+2+1+0 =$ length of items $0+2+1+5+4+3$) (See Figs. 6A, 6B, items $m-1$, m , 0-5, from Col. 8, Line 29 to Col. 9, Line 43).

It would have been obvious to one of ordinary skill in the art at the time of invention to provide a different coding of the column control words in the Saegusa

system in view of teaching of Van Dijk in order to reduce artifacts (See Col. 2, Lines 24-25 in the Van Dijk reference).

Van Dijk and the Saegusa do not show writing instants which are substantially different for at least one bit of specified rank from one line to the next.

Nakamura teaches writing instants which are substantially different from one line to the next (See Fig. 3, items Pw, Col. 3, Lines 32-39).

It would have been obvious to one of ordinary skill in the art at the time of invention to provide different writing instants in Van Dijk and the Saegusa system in view of teaching of Nakamura in order to provide stable driving method (See Col. 3, Lines 61-63 in the Nakamura reference).

As to claim 3, Saegusa teaches at least two successive lines are selected simultaneously for at least one of the bits of a specified rank, which has an identical weight from one control word to the other (See Fig. 2, items ODD ROW – W 32, EVEN ROW – W 32).

As to claim 9, Van Dijk teaches cells of plasma panel and that the selection causes the illumination of the cell (see Fig. 1, item c, Col. 1, Lines 31-60).

As to claim 11, Saegusa teaches a video processing circuit for processing the video data received (See Fig. 1, items 3-5, Col. 2, Lines 2-47), a correspondence memory for transcoding the received data, a video memory for storing transcoded data (See Fig. 1, items 7-8), the video memory being linked to column supply circuits for controlling the column addressing of a plasma panel on the basis of column control words (See Fig. 1, items 8-9, Col. 2, Lines 2-47), a control circuit for line supply circuit

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linked to the video processing circuit so as to select lines (See Fig. 1, items 13-14, Col. 2, Lines 41-48), and Van Dijk teaches a different coding of the column control words is performed the video processing and transcoding circuits depending on whether the word relates to an even or odd line (See Figs. 6A, 6B, items m-1, m, 0-5, Col. 8, Lines 29-52), at least m (in the reference $m=n$) successive bits of specified ranks, m between 2 and n, have different weight from one control word to the other (See Figs. 6A, 6B, items m-1, m, 0-5, Col. 8, Lines 29-52), the sum of the weights (for $m=n$) remain identical from one control word to the another.

Van Dijk and the Saegusa do not show writing instants which are substantially different for at least one bit of specified rank from one line to the next.

Nakamura teaches writing instants which are substantially different from one line to the next (See Fig. 3, items Pw, Col. 3, Lines 32-39).

It would have been obvious to one of ordinary skill in the art at the time of invention to provide different writing instants in Van Dijk and the Saegusa system in view of teaching of Nakamura in order to provide stable drivig method (See Col. 3, Lines 61-63 in the Nakamura reference).

2. Claims 5-6 are rejected under 35 U.S.C. 103(a) as being unpatentable over Saegusa, Nakamura and Van Dijk as applied to claim 1 above, and further in view of Inoue et al. (US Patent No. 5,646,646).

Saegusa, Nakamura and Van Dijk do not show the zones or images with strong vertical transition, the other zones utilizing sub-scans corresponding to all identical weights from one line to another.

Inoue et al. teaches the scroll image partial writing could be implemented before no change in image data (See Fig. 9D, items 112, 114, Col. 14, Lines 5-26).

It would have been obvious to one of ordinary skill in the art at the time of invention to provide partial writing in the Saegusa, Nakamura and Van Dijk system in view of teaching of Inoue et al. in order to reduce artifacts.

3. Claim 8 is rejected under 35 U.S.C. 103(a) as being unpatentable over Saegusa, Nakamura and Van Dijk as applied to claim 1 above, and further in view of Sakoda et al. (US Patent No. 5,559,954).

Saegusa, Nakamura and Van Dijk do not show value of m (number of bits) is dependent on the vertical resolution.

Sakoda et al. teaches number of bits is dependent on the vertical resolution (See Fig. 4c, Col. 8, Lines 61-68).

It would have been obvious to one of ordinary skill in the art at the time of invention to provide number of bits is dependent on the vertical resolution in the Saegusa, Nakamura and Van Dijk system in view of teaching of Sakoda et al. in order to reduce artifacts.

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4. Claim 10 is rejected under 35 U.S.C. 103(a) as being unpatentable over Saegusa, Nakamura and Van Dijk as applied to claim 1 above, and further in view of Nelson (US Patent No. 5,771,060).

Saegusa, Nakamura and Van Dijk do not show cells are micromirrors of a micromirror circuit.

Nelson teaches cells are micromirrors of a micromirror circuit (See Fig. 1a, item 1 Col. 6, Lines 31-51).

It would have been obvious to one of ordinary skill in the art at the time of invention to provide micromirrors in the Saegusa, Nakamura and Van Dijk system in view of teaching of Nelson in order to increase the range of applications.

Allowable Subject Matter

5. Claims 4, 7, 13 are allowed.

The following is an examiner's statement of reasons for allowance:

Relative to independent claim 4 the major difference between the teaching of the prior art of record (Saegusa, Van Dijk and Nakamura) and the instant invention is that the said prior art **does not teach** wherein at least one of the bits of a specified rank, which has an identical weight from one control word to the other, is used to code a partial value of luminance common to two successive lines and in that writing is simultaneous on these lines for this bit of the control word relating to one of the two lines.

Relative to independent claim 7 the major difference between the teaching of the prior art of record (Saegusa, Van Dijk and Nakamura) and the instant invention is that the said prior art **does not teach** wherein the switchover from the first addressing method comprising n sub-scans to a second addressing method comprising a larger number of sub-scans and for which the control words have a larger number of bits having identical weights from one line to the other is performed by replacing the selection of a line l while writing a bit of different weight on the line 1, in the first method, by the selection of the line l and of the immediately preceding or immediately following line for a simultaneous writing on these two lines, in the second method.

Relative to independent claim 11 the major difference between the teaching of the prior art of record (Saegusa, Van Dijk and Nakamura) and the instant invention is that the said prior art **does not teach** further comprising a selection circuit receiving the video data so as to select a coding of the column control words corresponding to an addressing according to n sub-scans or to an addressing corresponding to a larger number of sub-scans, as a function of the variations in luminance from one line to the another in an image or an image part.

6. Claims 2, 12 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Relative to claims 2 and 12, the major difference between the teaching of the prior art of record (Saegusa, Van Dijk and Nakamura) and the instant invention is that

the said prior art **does not teach** on two successive lines for at least the first bit of the m successive bits of a control word relating to one of the two lines.

Response to Arguments

7. Applicant's arguments filed on 08.02.05 have been fully considered but they are not persuasive:

On page 11, 3rd paragraph of Remarks in relation to claim 1, Applicant's stated in Nakamura the writing instants are slightly differ for two consecutive lines. However, one of the ordinary skill in the art will recognize that the writing instants are substantially different (See Fig. 3, items Pw).

On page 12, 2nd paragraph, Applicant's stated that that the writing instants are substantially different ... from one line to next. However, one of the ordinary skill in the art will recognize that the writing instants are substantially different (See Fig. 3, items Pw).

The reasons outlined above will apply also to claim 11.

Conclusion

THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not

mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Telephone inquire

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Leonid Shapiro whose telephone number is 571-272-7683. The examiner can normally be reached on 8 a.m. to 5 p.m..

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Amr Awad can be reached on 571-272-7764. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

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03.15.06

A handwritten signature in black ink, appearing to read 'B. Shalwala', with a long horizontal flourish extending to the right.

BIPIN SHALWALA
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2600